

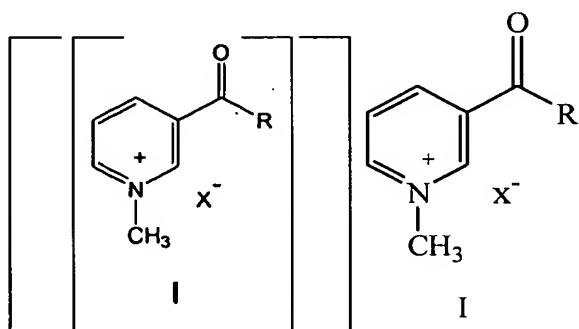
In the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

What is claimed is:

1.-56. (Canceled)

57. (Currently amended) A method for treatment ~~or prevention~~ of conditions or diseases associated with dysfunction of vascular endothelium, oxidative stress and/or insufficient production of endothelial PGI₂, comprising administration to a subject in a need thereof a therapeutically effective amount of a quaternary pyridinium salt of formula I:



wherein R is NH₂, CH₃ or N(H)CH₂OH ~~NH₂, CH₃ or N(H)CH₂OH~~, and X is a pharmaceutically acceptable counterion.

58. (Previously presented) The method in accordance with claim 57, wherein said dysfunction of vascular endothelium, oxidative stress, and/or insufficient production

of endothelial prostacyclin PGI_2 coincides with hypercholesterolemia, hypertriglyceridemia or low HDL levels.

59. (Withdrawn) The method in accordance with claim 57, wherein said condition or disease is atherosclerosis.

60. (Withdrawn) The method in accordance with claim 57, wherein said condition or disease is an acute cardiovascular event associated with atherosclerosis, sudden cardiac death, acute coronary syndrome, unstable coronary artery disease, myocardial infarct, the necessity of coronary angioplasty (PCI), coronary-aortal by-pass surgery (CABG), ischemic stroke, or peripheral circulation revascularization.

61. (Withdrawn) The method in accordance with claim 57, wherein said condition or disease is atherosclerosis in patients with chronic coronary disease, ischemic cerebrovascular episode or atherosclerosis of the extremities, including obliterans.

62. (Withdrawn) The method in accordance with claim 57, wherein said condition or disease is selected from the group of risk factors for atherosclerosis comprising: hypercholesterolemia, arterial hypertension, smoking, hyperhomocysteinaemia, insulin resistance, diabetes, menopause, aging, obesity, mental stress, infection or inflammatory states, periodontal diseases, rheumatoid arthritis, allograft vasculopathy or nitrate tolerance.

63. (Previously presented) The method in accordance with claim 57, wherein said condition or disease is dyslipidemia, hypercholesterolemia, hypertriglyceridemia or hypertriglyceridemia associated with low plasma level of HDL.

64. (Previously presented) The method in accordance with claim 57, wherein the condition or disease is thrombosis that is not related directly with atherosclerosis, thrombosis associated with implantation of metallic vascular prostheses (stents), coronary-aortal by-pass surgery (CABG), any type of surgery with extracorporeal circulation, hemodialysis, or venous embolic disease.

65.-69. (Canceled)

70. (Previously presented) The method in accordance with claim 57, wherein the pyridinium salt of formula I is administered orally.

71. (Previously presented) The method in accordance with claim 57, wherein the pyridinium salt of formula I is administered parenterally.

72. (Previously presented) The method in accordance with claim 57, wherein the pyridinium salt of formula I is administered to the airways by inhalation.

73. (Canceled)

74. (Previously presented) The method in accordance with claim 57, wherein R is a CH₃ group.

75. (Previously presented) The method in accordance with claim 57, wherein R is an NH₂ group.

76. (Previously presented) The method in accordance with claim 57, wherein R is an N(H)CH₂OH group.

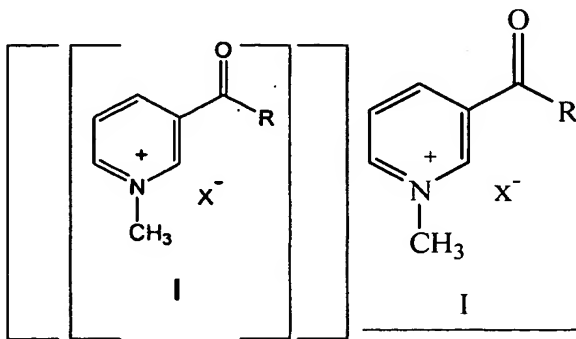
77. (Currently amended) The method in accordance with claim 57, wherein said quaternary ~~[[the]]~~ pyridinium salt derivative is administered together with a cardiovascular agent.

78. (Previously presented) The method in accordance with claim 57, wherein said quaternary pyridinium salt is a 1-methylnicotinamide salt and said condition or disease is hypercholesterolemia, hypertriglyceridemia or low HDL levels.

79. (Previously presented) The method in accordance with claim 57, wherein said quaternary pyridinium salt is in the form of a composition with a pharmaceutically acceptable carrier.

80. (Previously presented) The method in accordance with claim 57, wherein said quaternary pyridinium salt is in the form of a composition with a nutritional preparation.

81. (Withdrawn; currently amended) A method for enhancing prostacyclin levels in mammals, which comprises oral administration of an effective amount of the quaternary pyridinium salt of formula I:



wherein R is NH₂, CH₃ or N(H)CH₂OH ~~NH₂, CH₃ or N(H)CH₂OH~~, and X is a pharmaceutically acceptable counterion.

82. (Withdrawn) The method in accordance with claim 81, wherein said quaternary pyridinium salt is in the form of a composition with a pharmaceutically acceptable carrier.

83. (Withdrawn) The method in accordance with claim 81, wherein said quaternary pyridinium salt is in the form of a composition with a nutritional preparation.

84. (Withdrawn) The method in accordance with claim 81, wherein insufficient production of endothelial prostacyclin is age-related.

85. (Canceled)

86. (Previously presented) A method of treating hypertriglyceridemia in a subject in need thereof, said method comprising administering an effective amount of 1-methylnicotinamide to said subject.

87. (Previously presented) The method of claim 86, wherein said hypertriglyceridemia is associated with a low plasma level of HDL.

88. (Previously presented) The method of claim 63, wherein said condition or disease is said hypertriglyceridemia or said hypertriglyceridemia that is associated with a low plasma level of HDL.

89. (Previously presented) The method of claim 88, wherein said hypertriglyceridemia is hypertriglyceridemia that is associated with a low plasma level of HDL.